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#3
2-21-02
P.2.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/023,529

DATE: 01/18/2002

TIME: 09:17:04

Input Set : N:\Crf3\RULE60\10023529.raw

Output Set: N:\CRF3\01182002\J023529.raw

1 <110> APPLICANT: Lees, Ann M.
 2 Lees, Robert S.
 3 Law, Simon W.
 4 Arjona, Anibal A.
 5 <120> TITLE OF INVENTION: NOVEL LOW DENSITY LIPOPROTEIN BINDING
 6 PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING
 7 ATHEROSCLEROSIS
 8 <130> FILE REFERENCE: 10797-004001
 9 <140> CURRENT APPLICATION NUMBER: 10/023,529
 10 <141> CURRENT FILING DATE: 2001-12-17
 11 <150> PRIOR APPLICATION NUMBER: 09/616,289
 12 <151> PRIOR FILING DATE: 2000-07-14
 15 <150> PRIOR APPLICATION NUMBER: US 09/517,849
 16 <151> PRIOR FILING DATE: 2000-03-02
 17 <150> PRIOR APPLICATION NUMBER: US 08/979,608
 18 <151> PRIOR FILING DATE: 1997-11-26
 19 <150> PRIOR APPLICATION NUMBER: US 60/031,930
 20 <151> PRIOR FILING DATE: 1996-11-27
 21 <150> PRIOR APPLICATION NUMBER: US 60/048,547
 22 <151> PRIOR FILING DATE: 1997-06-03
 23 <160> NUMBER OF SEQ ID NOS: 53
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 151
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Oryctolagus cuniculus
 30 <400> SEQUENCE: 1
 31 Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val
 32 1 5 10 15
 33 Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp
 34 20 25 30
 35 Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln
 36 35 40 45
 37 Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
 38 50 55 60
 39 Asn Thr Arg Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
 40 65 70 75 80
 41 Lys Val Leu Ile Ser Phe Lys Ala Gly Asp Ile Glu Lys Ala Val Gln
 42 85 90 95
 43 Ser Leu Asp Arg Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
 44 100 105 110
 45 Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Gln Trp
 46 115 120 125

ENTERED

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```

47      His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
48          130                      135                      140
49      Leu Thr Ala Arg Lys Thr Val
50          145                      150
52 <210> SEQ ID NO: 2
53 <211> LENGTH: 317
54 <212> TYPE: PRT
55 <213> ORGANISM: Oryctolagus cuniculus
56 <220> FEATURE:
57 <221> NAME/KEY: VARIANT
58 <222> LOCATION: (1)...(317)
59 <223> OTHER INFORMATION: Xaa = Any Amino Acid
60 <400> SEQUENCE: 2
W--> 61      Asp Cys Arg Ser Ser Ser Asn Asn Arg Xaa Pro Lys Gly Gly Ala Ala
62          1                      5                      10                      15
63      Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
64          20                      25                      30
65      Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
66          35                      40                      45
67      Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
68          50                      55                      60
69      Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
70          65                      70                      75                      80
71      Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala
72          85                      90                      95
73      Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu
74          100                     105                     110
75      Asp Asp Glu Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val
76          115                     120                     125
77      Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly
78          130                     135                     140
79      Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser
80          145                     150                     155                     160
81      Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala
82          165                     170                     175
83      Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu
84          180                     185                     190
85      Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val
86          195                     200                     205
87      Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro
88          210                     215                     220
89      Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu
90          225                     230                     235                     240
91      Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro
92          245                     250                     255
93      Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu
94          260                     265                     270
95      Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu
96          275                     280                     285

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Output Set: N:\CRF3\01182002\J023529.raw

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97      Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln
98          290                      295                      300
99      Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
100          305                      310                      315
102 <210> SEQ ID NO: 3
103 <211> LENGTH: 232
104 <212> TYPE: PRT
105 <213> ORGANISM: Oryctolagus cuniculus
106 <400> SEQUENCE: 3
107      Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val
108          1                      5                      10                      15
109      Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
110          20                      25                      30
111      Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
112          35                      40                      45
113      Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
114          50                      55                      60
115      Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
116          65                      70                      75                      80
117      Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
118          85                      90                      95
119      Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
120          100                     105                     110
121      Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
122          115                     120                     125
123      Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
124          130                     135                     140
125      Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
126          145                     150                     155                     160
127      Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
128          165                     170                     175
129      Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
130          180                     185                     190
131      Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
132          195                     200                     205
133      Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
134          210                     215                     220
135      Asp Asp Pro Glu Gly Phe Leu Gly
136          225                     230
138 <210> SEQ ID NO: 4
139 <211> LENGTH: 252
140 <212> TYPE: PRT
141 <213> ORGANISM: Oryctolagus cuniculus
142 <400> SEQUENCE: 4
143      Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg
144          1                      5                      10                      15
145      Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
146          20                      25                      30
147      Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Asp

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RAW SEQUENCE LISTING

DATE: 01/18/2002

PATENT APPLICATION: US/10/023,529

TIME: 09:17:04

Input Set : N:\Crf3\RULE60\10023529.raw

Output Set: N:\CRF3\01182002\J023529.raw

```

148          35          40          45
149  Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro
150          50          55          60
151  Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly
152  65          70          75          80
153  Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu
154          85          90          95
155  Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly
156          100          105          110
157  Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly
158          115          120          125
159  Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
160          130          135          140
161  Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
162  145          150          155          160
163  Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
164          165          170          175
165  Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
166          180          185          190
167  Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
168          195          200          205
169  Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
170          210          215          220
171  Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
172  225          230          235          240
173  His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
174          245          250
176 <210> SEQ ID NO: 5
177 <211> LENGTH: 557
178 <212> TYPE: PRT
179 <213> ORGANISM: Oryctolagus cuniculus
180 <400> SEQUENCE: 5
181  Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
182  1          5          10          15
183  Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
184          20          25          30
185  Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
186          35          40          45
187  Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
188          50          55          60
189  Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
190  65          70          75          80
191  Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
192          85          90          95
193  Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
194          100          105          110
195  Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
196          115          120          125
197  Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu

```

DATE: 01/18/2002
TIME: 09:17:04

Input Set : N:\Crif3\RULE60\10023529.raw
Output Set: N:\CRF3\01182002\J023529.raw

198	130					135					140						
199	Ile	Arg	Thr	Ser	Asp	Glu	Val	Gly	Asp	Arg	Asp	His	Arg	Arg	Pro	Gln	
200	145					150					155					160	
201	Glu	Lys	Lys	Lys	Ala	Lys	Gly	Leu	Gly	Lys	Glu	Ile	Thr	Leu	Leu	Met	
202	165					170					175						
203	Gln	Thr	Leu	Asn	Thr	Leu	Ser	Thr	Pro	Glu	Glu	Lys	Leu	Ala	Ala	Leu	
204	180					185					190						
205	Cys	Lys	Lys	Tyr	Ala	Glu	Leu	Leu	Glu	Glu	His	Arg	Asn	Ser	Gln	Lys	
206	195					200					205						
207	Gln	Met	Lys	Leu	Leu	Gln	Lys	Lys	Gln	Ser	Gln	Leu	Val	Gln	Glu	Lys	
208	210					215					220						
209	Asp	His	Leu	Arg	Gly	Glu	His	Ser	Lys	Ala	Ile	Leu	Ala	Arg	Ser	Lys	
210	225					230					235					240	
211	Leu	Glu	Ser	Leu	Cys	Arg	Glu	Leu	Gln	Arg	His	Asn	Arg	Ser	Leu	Lys	
212	245					250					255						
213	Glu	Glu	Gly	Val	Gln	Arg	Ala	Arg	Glu	Glu	Glu	Lys	Arg	Lys	Glu		
214	260					265					270						
215	Val	Thr	Ser	His	Phe	Gln	Met	Thr	Leu	Asn	Asp	Ile	Gln	Leu	Gln	Met	
216	275					280					285						
217	Glu	Gln	His	Asn	Glu	Arg	Asn	Ser	Lys	Leu	Arg	Gln	Glu	Asn	Met	Glu	
218	290					295					300						
219	Leu	Ala	Glu	Arg	Leu	Lys	Lys	Leu	Ile	Glu	Gln	Tyr	Glu	Leu	Arg	Glu	
220	305					310					315					320	
221	Glu	His	Ile	Asp	Lys	Val	Phe	Lys	His	Lys	Asp	Leu	Gln	Gln	Gln	Leu	
222	325					330					335						
223	Val	Asp	Ala	Lys	Leu	Gln	Gln	Ala	Gln	Glu	Met	Leu	Lys	Glu	Ala	Glu	
224	340					345					350						
225	Glu	Arg	His	Gln	Arg	Glu	Lys	Asp	Phe	Leu	Leu	Lys	Glu	Ala	Val	Glu	
226	355					360					365						
227	Ser	Gln	Arg	Met	Cys	Glu	Leu	Met	Lys	Gln	Gln	Glu	Thr	His	Leu	Lys	
228	370					375					380						
229	Gln	Gln	Leu	Ala	Leu	Tyr	Thr	Glu	Lys	Phe	Glu	Glu	Phe	Gln	Asn	Thr	
230	385					390					395					400	
231	Leu	Ser	Lys	Ser	Ser	Glu	Val	Phe	Thr	Thr	Phe	Lys	Gln	Glu	Met	Glu	
232	405					410					415						
233	Lys	Met	Thr	Lys	Lys	Ile	Lys	Lys	Leu	Glu	Lys	Glu	Thr	Thr	Met	Tyr	
234	420					425					430						
235	Arg	Ser	Arg	Trp	Glu	Ser	Ser	Asn	Lys	Ala	Leu	Leu	Glu	Met	Ala	Glu	
236	435					440					445						
237	Glu	Lys	Thr	Leu	Arg	Asp	Lys	Glu	Leu	Glu	Gly	Leu	Gln	Val	Lys	Ile	
238	450					455					460						
239	Gln	Arg	Leu	Glu	Lys	Leu	Cys	Arg	Ala	Leu	Gln	Thr	Glu	Arg	Asn	Asp	
240	465					470					475					480	
241	Leu	Asn	Lys	Arg	Val	Gln	Asp	Leu	Ser	Ala	Gly	Gly	Gln	Gly	Pro	Val	
242	485					490					495						
243	Ser	Asp	Ser	Gly	Pro	Glu	Arg	Arg	Pro	Glu	Pro	Ala	Thr	Thr	Ser	Lys	
244	500					505					510						
245	Glu	Gln	Gly	Val	Glu	Gly	Pro	Gly	Ala	Gln	Val	Pro	Asn	Ser	Pro	Arg	
246	515					520					525						

VERIFICATION SUMMARY

DATE: 01/18/2002

PATENT APPLICATION: US/10/023,529

TIME: 09:17:05

Input Set : N:\Crf3\RULE60\10023529.raw

Output Set: N:\CRF3\01182002\J023529.raw

L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:2732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53